



# Best Management Practices for Construction and Development Projects

## Yellow Mud Turtle

*Kinosternon flavescens*

**Common name** • Yellow Mud Turtle

**Scientific name** • *Kinosternon flavescens*

**Federal status** • None

**State status** • Endangered

### Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended as a guide to manage habitat for a given species. Please contact the Department of Conservation if habitat management information is needed. Because every project and location differ, following the recommendations in this document does not guarantee impacts will not occur to the species and additional information may be required in certain instances. Following the recommendations in this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

### Ecology

Yellow Mud Turtles (formerly the Illinois Mud Turtle) occur in disjunct populations throughout the sand prairie region along the Illinois River, the Oquawka sand area in Illinois, and into northeastern Missouri and southeastern Iowa. Yellow Mud Turtles primarily occur in the southern Great Plains states with isolated populations in Missouri (southwestern and Kansas City area), Nebraska and eastern Texas. In Missouri, they occur in natural marshes, oxbow lakes, muddy sloughs, and ponds. They may be found in flooded fields associated with sandy soil. Yellow Mud Turtles are active for approximately 100 to 125 days during the warm season, with peaks of activity from April to early-July and late August to late-October. Considerable time is spent on land compared to aquatic habitats. During the winter and hot summer months when they are inactive, they bury themselves in loose sand 10 inches or so below the surface. Yellow Mud Turtles typically move into aquatic areas to prey on snails, insects, fish, crayfish, and mussels. Breeding likely occurs between April and mid-May. Females lay 4-6 eggs in nests near water on sandy slopes with scattered vegetation. Young hatch in late-August to mid-September and may remain in the nest until the following spring.

### Reasons for Decline

Historical records indicate Yellow Mud Turtles were never common nor widespread in Missouri. However, destruction of wetlands and marshes, as well as the loss of native grasslands for agriculture and urbanization may eliminate habitat for these turtles. In addition, degradation of remaining habitat because of non-point source pollution and alteration of water regimes continue to threaten the status of the Yellow Mud Turtle in Missouri, as well as extensive nest predation and potential effects of herbicides.

### Specific Recommendations

Maintenance and restoration of wetlands is critical for the survival of many species, including the Yellow Mud Turtle.

- Avoid removing or destroying unique habitat features, such as downed trees, that provide habitat for the Yellow Mud Turtle.
- Draining or destroying known wetland habitat should be avoided.
- Erosion and sediment controls should be implemented, maintained, and monitored for the duration of the project.
- Disposal of wastes and garbage should be done in designated areas far from wetlands.
- Avoid altering water levels and regimes in marshes and wetlands within the range of the Yellow Mud Turtle.
- Turtle tunnels under roadways may help this species carry out reproductive activities or fencing barriers may be necessary to discourage use.
- Use of net-like mesh fabrics (plastics, nylon, twine, etc.) for erosion control should be avoided due to entrapment and entanglement hazards.
- At sites occupied by the turtle, activities (i.e., mowing, disk ing, burning, etc.) should be conducted during the inactive season between early November and late March.
- Compaction and alteration of soil (vehicle and ATV use, disk ing, etc.) that directly impacts the species or its habitat (destroy crayfish burrows) should be avoided.
- If application of pesticides, herbicides, and fertilizers in or near seasonal wetlands is necessary, carefully follow all label directions and consider application of more wildlife and wetland friendly herbicides and pesticides.

## **General Recommendations**

Refer to Refer to *Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams.*

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or the [Missouri Department of Transportation Environmental Studies webpage](#) for additional information on recommendations.

by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Federal laws such as the Clean Water Act and the Endangered Species Act, and state or Local laws need to be considered for construction and development projects and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.

## **Information Contacts**

For further information regarding regulations for development in rivers and streams, contact:

For species information:

[Missouri Department of Conservation](#)

Science Branch  
P.O. Box 180  
Jefferson City, MO 65102-0180  
Telephone: 573-751-4115

For species information and Endangered Species Act Coordination:

[U.S. Fish and Wildlife Service](#)

Ecological Services  
101 Park Deville Drive, Suite A  
Columbia, MO 65203-0007  
Telephone: 573-234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)

Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573-751-1300, 800-361-4827

[U.S. Army Corps of Engineers](#)

Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816-389-3990

[U.S. Environmental Protection Agency](#)

EPA Region 7 Water Division  
11201 Renner Boulevard  
Lenexa, KS 66219  
Telephone: 913-551-7977

## **Disclaimer**

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors, and others to provide guidance to those who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required